

Goddard Space Flight Center

Request for Non-Ionizing Radiation Safety Committee Action

Laser Radiation Source Questionnaire



1. Originator's Name (Last, First, M.I.):	Code	Phone	Date	Docket Number
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2. Laser Device Description:

a. Application:

b. Manufacturer and Address:

c. Model Number:

d. Laser Medium:

e. Wave Type: Check One: ☐ Continuous Wave ☐ Single Pulsed ☐ Multiple Pulsed

f. Interlocks (Check One): ☐ None ☐ Fallible ☐ Fail-Safe

g. Wavelength (mm): For each Wavelength, complete a GSFC Form 23-28L

h. Beam Shape (Check One): ☐ Circular ☐ Elliptical ☐ Rectangular

Other: Beam Diameter (mm) Beam Divergence (mrad)

 Diameter at Waist (mm) Aperture to Waist Distance (cm)

 Major Axis Dimension (mm) Major Divergence (mrad)

 Minor Axis Dimension (mm) Minor Divergence (mrad)

i. Pulse Width (sec) j. PRF (Hz)

k. Energy (Joules) l. Gaussian Criteria (Check One): ☐ e-1 ☐ e-2

m. Average Power (watts) n. Single Mode Fiber Diameter

o. Multi Mode Fiber Numerical Aperture (NA) * To check a box, click on the box

Attach a Sketch of Proposed Laser Setup and Warning Sign Locations (Building & Room Number). Add any special notes here:

RADIATION PROTECTION OFFICE (RPO) USE ONLY

3. Date Received:	4. GSFC ECN Number:	5. ANSI Class:
6. Serial Number:		7. Carcinogenic Dye Used? Yes No
8. Special Ventilation Required? Yes No		9. Industrial Hygiene Office Notified? Yes No

RPO Certification:

Printed Name:	Signature:	Date:
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Final Disposition:

Instructions for filling out GSFC Form 23-28L, Request for Non-Ionizing Radiation Safety Committee Action - Ionizing Radiation Source Questionnaire

For additional guidance refer to GPR 1860.2 (series) "Laser Radiation Protection," particularly Section 2.3

ALL ITEMS MUST BE ELECTRONICALLY TYPED ONTO THE FORM

1. If you do not have a GSFC Code designation you must include a valid mailing address on an attached paper.
2. Laser Device Description:
 - a. Describe intended application (e.g., for use on system or experiment)
 - b. Enter name of manufacturer and address. If unit is being built at GSFC, enter name of person who is building the unit, Organizational Code and Phone number.
 - c. Enter model number
 - d. Enter laser medium (e.g., Nd:YAG, HeNe, XeCl, etc.)
 - e. Click in box to make selection.
 - f. Click in box to make selection. Failible means that the laser has interlocks by intent or design, or defeatable locks. Fail-Safe locks are undefeatable.
 - g. If laser output consists of multiple wavelengths, complete a separate GSFC Form 23-28L for each wavelength.
 - h. Check one box and complete appropriate items listed under "Other." Enter the beam diameter (in millimeters) at laser output port. If beam is not round, enter appropriate measurements for length and width for rectangular beams. Enter beam divergence (in radians).
 - i. Enter Pulse width (in seconds) for pulsed lasers.
 - j. Enter Pulse Repetition Frequency (PRF) in Hertz (Hz) for pulsed lasers.
 - k. Enter Energy (in Joules) for pulsed laser.
 - l. Gaussian Criteria. You must enter the beam diameter and divergence as the 1/e dimensions.
 - m. Enter Average Power (Watts) for Continuous Wave (CW) lasers.
 - n. If single mode fiber coupled fill in diameter of fiber in micrometers.
 - o. If multi mode fiber coupled fill in the numerical aperture of the fiber.
3. Provide a sketch showing the location of the laser system within the room and locations where access will be restricted. Show locations where laser-warning signs will be posted.

RETURN THE ELECTRONICALLY COMPLETED FORM VIA EMAIL TO CODE 350.2

If you have any questions concerning this form or need to know who to send the form electronically to, please contact the Radiation Protection Office (RPO) at 301-286-7367 or 301-286-0766.

RADIATION PROTECTION OFFICE (RPO) USE ONLY

4. Indicates date laser system was installed.
5. Indicates GSFC Equipment Control Number.
6. Indicates appropriate laser class as determined by the American National Standards Institute (Class 1, 2, 2M, 3, 3R, 3B, or 4). Enter serial number of laser system for commercially manufactured device.
7. Enter serial number of laser system for commercially manufactured device.
8. Check appropriate box if carcinogenic dyes are used within the laser device.
9. If laser is used for cutting or burning, special ventilation will be required.
10. If number 8 or 9 (above) is checked yes, the Industrial Hygiene Office must be notified.

Signature of RPO representative is required, including date signed.

Enter final disposition of the laser system, i.e., sold, scrapped, transferred, etc.